

REMARKS

Claims 1-3, 5, 7, 16 and 19-21 remain pending. Reconsideration is respectfully requested.

Claim 16 was rejected under 35 U.S.C. § 112, first paragraph. It is respectfully submitted that the above amendment wherein “in contact with” has been replaced by “disposed about” cures the informality noted by the Examiner.

Claims 5 and 7 were rejected under 35 U.S.C . § 112, second paragraph. It is respectfully submitted that the above amendments to the two claims cure the lack of antecedent basis noted by the Examiner.

Claims 1, 2 and 16 were rejected under 35 U.S.C. § 102(b) as anticipated by Gharibadeh (U.S. Patent No. 5,108,525). In view of the fact that independent claims 1 and 16 as amended now require the use of a heat shrinkable collar in order to hot press the polymeric member onto the metallic member, it is respectfully submitted that anticipation by the cited reference is now effectively avoided. Moreover, it is respectfully submitted that tensioning and twisting a polymeric member onto a metallic core represents a very different approach than reliance on the compressive force generated by a heat shrink collar and that therefore obviousness is also effectively avoided.

Claims 1-4, 6 and 16 were rejected under 35 U.S.C. § 103(a) as obvious over Graver, Sr. (U.S. Patent No. 4,390,668) in view of Sirhan et al. (U.S. Patent No. 5,743,875). While the Examiner asserts that the elastomeric member 24 is heat shrinkable in view of the disclosure at column 5, lines 31-33 that a highly plasticized vinyl may be used as the elastomer, it is respectfully submitted that there is absolutely no suggestion that the composition referred to is in fact heat shrinkable or that heat shrinkage is in fact relied upon to generate the compressive force. It is respectfully submitted

that the entire disclosure seems to teach away from this concept to the extent that an interference fit between the second portion 16 and the first portion 14 is called for (column 3, lines 47-53, column 4, lines 17 and 27) and that the second portion 16 is to have "rubber-like" qualities and an interior resilience by virtue of which the member 16 resiliently resists and recovers from deformation as set forth at column 3, lines 27-30. (It is to be noted that element 24 is the elastomeric component of the second portion 16.) The force generated by the interference fit is described at column 4, lines 38-40 as securing the needle and as uniformly constricting the thermoplastic member while it is in its softened state (column 4, lines 50-57). No other force is described or suggested. It is to be further noted that at column 7, lines 52-64, where the precise dimensions and properties of the elastomeric member 24 are described, no mention of any heat shrinkage properties is made. It is therefore respectfully submitted that reliance on a heat shrinkable collar to hot press a polymeric member onto a metallic member is not taught nor suggested by either of the cited references and that a finding of obviousness over this combination of references is precluded.

Claims 5 and 7 were rejected under 35 U.S.C. § 103(a) in view of Graver, Sr., in view of Sirhan et al. and further in view of Riggs (U.S. Patent No. 4,636,272). It is respectfully submitted that the cited combination of references does not overcome the shortcomings described above with respect to the patentability of the underlying independent claim. Moreover, it is to be noted that Riggs is directed to a very different process wherein a heated compression die in combination with heat shrink tubing (Fig. 7) is relied upon to melt both tubes to form a joint with 1:1 correspondence of the two polymeric tubing materials (column 6, lines 15-24). It is therefore respectfully submitted that obviousness is effectively avoided.

The newly added claims depend from claims the allowability of which is argued above. No

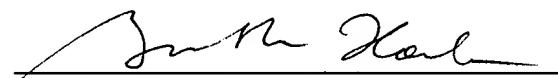
new matter was added in view of the disclosure at page 3, lines 5-7 of the specification.

Attached hereto is a marked-up version of the changes made to the claims by the present amendment. The attached page is captioned "**Version With Markings To Show Changes Made**".

In light of the above amendments and remarks, applicant earnestly believes the application to now be in condition for allowance and respectfully requests that it be passed to issue.

Respectfully submitted,

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Enclosure: "Version With Markings To Show Changes Made"

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

The application has been amended as follows:

**IN THE CLAIMS**

1. (Twice Amended) A method of making an intravascular catheter by securing a polymeric member to a metallic member in a high strength fluid tight relationship, comprising:

a) mounting the polymeric member against the metallic member; [and]

b) mounting a heat shrinkable collar about said polymeric member; and

5 c) applying heat such that said heat shrinkable collar causes [hot pressing] the polymeric member to be hot pressed against the metallic member at a temperature above the glass transition temperature and below the melting point of the polymeric material of the polymeric member while [subjecting the polymeric material] being subjected to plastic deformation.

2. (Amended) The method of claim 1 wherein the polymeric member is a tubular element with an inner lumen extending therethrough and at least part of the metallic member is disposed within the inner lumen of the polymeric member and the heat shrinkable collar surrounds only the portion of the polymeric member [material surrounding the metallic member is hot pressed against the portion of] that surrounds the metallic member within the inner lumen.

3. (Twice Amended) The method of claim [4] 1 wherein the [polymeric material from which the] polymeric member [is formed is] comprises a thermoplastic polymer selected from the group consisting of polyetheretherketone, ployetheramide, polyphenylene sulfide and polysulfone, and including causing the temperatures of both the polymeric and metallic members to increase to 5 a temperature above the glass transition temperature of the thermoplastic polymer [polymeric material and applying pressure to cause the polymeric member to deform and bond to the metallic member].

5. (Amended) The method of claim [4] 1 wherein the heat shrinkable [member] collar is removed after heat has been applied [from the junction between the polymeric material and the metallic member].

7. (Amended) The method of claim [4] 1 wherein the [polymeric] heat shrinkable collar is formed of a fluoropolymer.

16. (Amended) A method of making an intravascular catheter with an elongated shaft, by securing a polymeric member to a metallic tubular element in a high strength fluid tight relationship, comprising:

5 a) mounting the polymeric member against the metallic tubular member so that the polymeric tubular member is in contact with a surface of the [metallic] metallic tubular member; and

- b) mounting a heat shrinkable collar about said polymeric member; and
- c) applying heat such that said heat shrinkable collar causes [hot pressing] the  
polymeric member to be hot pressed against the metallic member at a temperature above the glass  
10 transition temperature and below the melting point of the polymeric material of the polymeric  
member, so that the polymeric [tubular] member is bonded to the surface of the metallic tubular  
member by a hot pressed bond, wherein the polymeric tubular member has a deformed section  
defined by the hot pressed bond, and a nondeformed section longitudinally adjacent to the deformed  
section and [in contact with] disposed about the surface of the metallic tubular member.

The following new claims have been added:

19. (New) The method of claim 5, further comprising disposing a masking layer between  
said polymeric member and said and said heat shrinkable collar before the application of heat.
20. (New) The method of claim 16 wherein the heat shrinkable collar is removed after  
heat has been applied.
21. (New) The method of claim 20, further comprising disposing a masking layer  
between said polymeric member and said and said heat shrinkable collar before the application of  
heat.

**Please cancel without prejudice claims 4 and 6.**